

**REMARKS**

Claims 1-9, 11-29 and 31-33 are pending in the current application. Claims 9 and 11-21 are withdrawn from consideration.

Applicant respectfully traverses all of the Examiner's remarks and requests reconsideration of the claims currently on file, with no amendments present herein. Accordingly, no new matter has been added since no amendments have been made. However, it is believed that the requirement should also be withdrawn with respect to claim 33; since it depends from presently considered claim 26. Clarification is requested.

**Restriction Requirement**

At the top of page 2 of the Office Action, the Examiner responds to applicant's traversal of the Restriction Requirement. Applicant thanks the Examiner for withdrawing the Restriction Requirement with respect to claims 26-29, 31 and 32 (sic 33). Applicant has amended the status of these claims such that they now appear as presented, rather than withdrawn.

**Rejection under 35 USC 102(e) or, in the alternative, 35 USC 103(a)**

The Examiner has rejected claims 1-4, 22-24, 26 and 31-33 as being anticipated by or, in the alternative, obvious in light of U.S. Patent No. 6,485,639 of Gannon et al. ("Gannon"). Specifically, the Examiner contends that the Gannon patent discloses a separator for oil comprising a layer of oil absorbing material under a layer of crushed stone or other sediment, with the layers separated by water permeable layers, as claimed. The Examiner contends that the stones "obviously" act as an oil adsorbing material, as sand and gravel are disclosed as having adsorbing properties, and all are particulate rock materials. The Examiner further contends that gravel is a form of crushed stone. Applicant respectfully traverses.

Gannon discloses a separator for oil providing several potential applications. None of the applications disclose the use of an adsorbent layer to minimize the usage of the absorbing material. Further, in transformer applications, Gannon discloses and suggests the use of a holding tank attached to the retention area to hold the water and oil following a catastrophic spill. Under these circumstances, the system disclosed in Gannon would be expected to seal very quickly and, without the holding tank, the water and oil would be spilled outside the containment area.

More importantly, nowhere is it disclosed or suggested within Gannon that stones or crushed stones act as an oil adsorbing material, or are, *de facto*, an oil adsorbing material. In fact, it is Applicant's view that stones and/or crushed stones would not be considered an oil adsorbing material by a person skilled in the art, as they have an immaterially little to no oil adsorbing properties. The Examiner has not provided any evidence or prior art to back up the statement that it is "obvious" that stones or crushed stones act as an oil adsorbing material. Though sand is disclosed as having adsorbing properties, crushed stone is not, either in the present specification, or in Gannon.

Gannon specifies that although not necessary to practice the invention, crushed stones or other sediment may be used to fill the remainder of the container to control the contact force of the hydrocarbon containing liquid to the filtration media (column 7, lines 24-27). The only further disclosure of these crushed stones are on column 8, lines 2-6 where Gannon states that a second porous layer capping a cake of filtration media is disposed thereon followed by crushed stones or other coarse, inert particulate matter to control the contact rate of the liquid to the filtration media. The crushed stones used in Gannon are not an oil adsorbing material, are not "obviously" an oil adsorbing material since they are not *de facto* an oil adsorbing material, and are not disclosed as being or functioning as an oil adsorbing material.

Further, in the present application, Applicant teaches the use of crushed limestone, not as an oil adsorbing material, but as a fire retardant material, which can be placed as an additional layer on top of the oil adsorbing layer (see p. 7, paragraph 0025 of the instant specification). A person of skill in the art would not consider crushed stone as an oil adsorbing material; as such, applicant respectfully traverses this rejection and resubmits their position that the presently claimed invention is neither obvious nor anticipated by Gannon since Gannon does not disclose, contemplate nor teach an oil adsorbing layer.

Further, applicant appreciates the Examiner's apparent withdrawal of the previous grounds of rejection with respect to Gannon.

The Examiner has rejected claims 1-4, 22-24, 26, 31 and 32 as being anticipated by, or in the alternative, obvious over, U.S. Patent No. 6,080,307 of Morris et al. ("Morris") or U.S. Patent No. 5,820,762 of Bamer ("Bamer"). The Examiner contends that Morris and Bamer each disclose containers having two layers of oil sorbing materials separated by permeable layers, as

claimed. The Examiner contends that the materials of Morris would obviously perform both absorbing and adsorbing functions, due to its hydrophobic nature as well as its absorptive properties. Further, the Examiner contends that Bamer discloses the use of both adsorbents such as diatomaceous earth, vermiculite, nylon, polypropylene and oyster shells, as well as absorbents such as activated carbon, perlite, fibrous cellulose and cotton.

The Examiner contends that the claims are obvious over Morris stating that the material of Morris would obviously perform both functions (i.e. an absorbing and an adsorbing function) due to its hydrophobic nature as well as its absorptive properties. Applicant respectfully but strenuously traverses the Examiner's new grounds of rejection with respect to Morris for the reasons set forth in detail below.

Morris only has one layer and not two layers of oil sorbing materials. Notably, Morris describes a container filled with bodies of absorbing material. The bodies, much like any other absorbing material, are piled on top of each other. There is no second layer of adsorbing material. The bodies are described as being able to absorb up to ten times their weight in oil. Applicant strongly submits that Morris, a reference with only one layer of oil absorbing material, which, the Examiner believes also has oil adsorbing properties, cannot make the present invention, which teaches two layers, one of oil absorbing and a second of oil adsorbing material, obvious or anticipated. The Morris reference shows a cartridge containing a number of oil absorbing materials arranged in such a way that they do not clog the storm drain insert. The presently disclosed invention has two separate layers, namely an adsorbing layer and an absorbing layer, specifically to increase the capacity of the system. In a worse case spill scenario, the two layers allow the system presently disclosed to seal all the containment area to contain oil and water, if present. Morris fails to do this, fails to disclose the need for two separate layers or the reasons why two separate layers would be advantageous, and as such, fails to render the presently claimed invention obvious or lacking in novelty.

Having two separate layers, with an oil adsorbing layer sitting on top of an oil absorbing layer, is an important element of the invention, since it allows for a large volume of oil to be trapped, and, when the system reaches capacity, the sealing of the containment system (as disclosed at paragraph 0030 and elsewhere in the present specification). The system thus allows water to pass through, and in the case of a minor oil spill, the oil adsorbing material adsorbs the

oil. This allows the system to continue allowing water (for example, rain water) through. However, when the oil adsorbing layer reaches capacity (i.e., a large oil spill, or a continuous oil spill), the oil absorbing material (the second layer) becomes saturated, sealing the system and preventing oil spill. This is taught at paragraph 030 and elsewhere and is a significant functional advantage over Morris, made possible by the unique structure of the present system. Applicant therefore respectfully submits the present claims are not obvious over Morris.

With respect to Bamer, this prior art reference discloses filter media which may include particulates or fibers. The particulate media can include diatomaceous earth, vermiculite, heated and crushed perlite, crushed oyster shells, or absorbent cellulosic particulate media. Nowhere does Bamer disclose a layer of absorbent material below a layer of adsorbent material nor does Bamer teach or suggest why such a combination would be advantageous. As such, there is no anticipation (since there is no specific disclosure of a layer of absorbent material below a layer of adsorbent material, or *de facto* disclosure since none of the exemplifications of Bamer teach a filter media that is absorbent below a layer that is adsorbent), nor is there obviousness, since there cannot be obviousness where the purpose is completely different. Bamer teaches having two or more bags of filter material to filter different types of products, for example, filtering out oils and greases with one bag and filtering out heavy metals with a second. The present invention is aimed at a very different problem, requires a very different solution, and, as such, cannot be rendered obvious by Bamer. Both layers in the present invention are directed at containing the same material: oil. Thus there is no learning from Bamer (where two separate materials are filtered) that applies to the present problem or solution.

The Examiner has rejected claims 1-8, 22-25 and 26-32 as being anticipated by U.S. Patent No. 5,108,614 of Ross et al. ("Ross"). Specifically, the Examiner contends that Ross discloses a multi-layer filter having a fire retardant material (gravel) over an adsorbent (peat) and an absorbent (wood ash), and an aggregate (gravel), each of which is separated by a permeable geotextile membrane.

Applicant respectfully traverses. The Ross system is based on adsorbent material that delays the passage of oil, but does not prevent it completely. Applicant submits that the unique and unobvious layering of oil absorbing and oil adsorbing material disclosed in the present application allows one to create a system wherein the oil containing system seals the containment


area. The Ross system, based on adsorbent material that only delays the passage of the oil, is not a containment system, as it would be subject to breakthrough over the passage of time or excess oil due to its reliance on adsorbent materials. Applicant submits that nothing in Ross teaches the layering of an oil adsorbing and an oil absorbing material, in the order disclosed in the present patent application, to create an oil containment system. The presently disclosed oil containment system has the unique advantage of being able to completely and permanently seal and contain the oil following a catastrophic oil spill, due to its conformation as claimed.

The Examiner has rejected claim 33 as being obvious over Ross in view of Gannon. Applicant respectfully submits that the arguments presented above obviate this rejection and render it moot.

In conclusion, taking into consideration the above remarks, it is submitted that all of the claims are in condition for allowance, and reconsideration and a notice of allowance are respectfully solicited.

Respectfully submitted,  
**Luciano A. Gonzales, et al.**

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(Date)

By:   
**WILLIAM W. SCHWARZE**  
Registration No. 25,918  
**AKIN GUMP STRAUSS HAUER & FELD LLP**  
One Commerce Square  
2005 Market Street, Suite 2200  
Philadelphia, PA 19103-7013  
Telephone: 215-965-1200  
**Direct Dial: 215-965-1270**  
Facsimile: 215-965-1210  
E-Mail: [wswaraze@akingump.com](mailto:wswaraze@akingump.com)

WWS/rdb  
Enclosure – Petition for Extension of Time (three months)